

Promoting Cybersecurity by Design for Software Capstone Courses



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Software Developers

Build & deploy systems

Learning Modules

Bridge gap
between policy
makers & software
developers

Policy Makers

Cybersecurity regulation & compliance

Key Problems:

- 1. Design cybersecurity learning for project-based courses
- 2. Validate utility of learning modules for promoting consideration of cybersecurity in real-world software projects

Scientific Impact:

Cybersecurity learning modules

Transfer to industry

Student capstone courses

Solutions:

- 1. Learning modules for cybersecurity knowledge
- 2. Assessment of cybersecurity knowledge
- 3. Active learning for cybersecurity concepts

Ideation Cards:



Broader Impact: Society

Capstone students & software developers

Products and industry

Users

Broader Impact: Education

- 1. Undergraduates in capstone courses
- 2. Modules for capstone curricula
- 3. Improved cybersecurity for real-world systems

